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Declaration under Rule 4.17:

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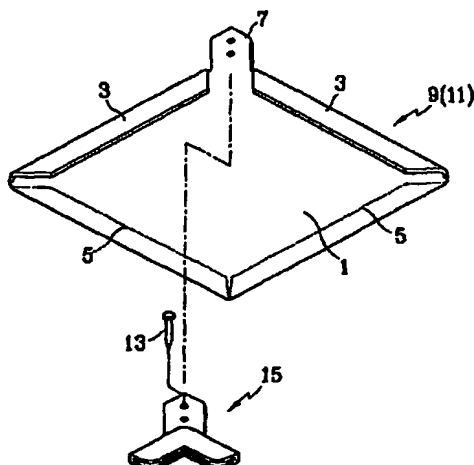
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(54) Title: **PANEL HAVING INTERLOCKING FOLDS USED AS INTERIOR OR EXTERIOR FINISHING MATERIAL FOR BUILDINGS**



(57) Abstract: A panel having interlocking folds which is used as an interior or exterior finishing material for buildings. The panel is easily installed on a support surface, and has a function of preventing a backflow of water into gaps between the interlocking folds of sealed panels by wind action. The panel includes a tetragonal panel body (1), two outer interlocking folds (3) provided by folding outwardly two neighboring sides of the panel body to extend in parallel to a surface of the panel body, two inner interlocking folds (5) provided by folding inwardly two remaining sides, opposite to the outer interlocking folds, to extend in parallel to the opposite surface, and a locking part (7) provided at a corner between the two outer interlocking folds to be fastened to a support surface by a locking nail.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/KR2004/001489

A. CLASSIFICATION OF SUBJECT MATTER

IPC7 E04F 13/12

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC7 E04F 13/00 - 13/18

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean Patents and applications for inventions since 1975

Korean Utility models and applications for Utility models since 1975

Japanese Utility models and applications for Utility models since 1975

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 62-182314 U (Dowoo Kin Co.) 19 NOV 1987 All documents	1-2
X	JP 3-120711 U (Dowoo Kin Co.) 11 DEC 1991 Fig5	1-2
A	JP 2003-27666 A (Sengdowoo) 29 JAN 2003 Fig1,3,5	1
A	US 6,128,866 A (John R. Wearne) 10 OCT 2000 All documents	1
A	US 4,972,647 A (Charles K. Meldrum) 27 NOV 1990 All documents	1
A	US 20010001404 A1 (Cris Damon) 24 MAY 2001 All documents	1
A	KR 2002-0367713 B (Woojung Co.) 27 DEC 2002 Fig3	1

☐ Further documents are listed in the continuation of Box C.☒ See patent family annex.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
JP 62-182314 U	19/11/1987	JP 1674451 C JP 3038368 B	26/06/1992 10/06/1991
JP 3-120711 U	11/12/1991	(NONE)	
JP 2003-27666 A	29/01/2003	(NONE)	
US 6,128,866 A	10/10/2000	AU 5200698 A CA 2271773 A1 WO 9820210 A1	29/05/1998 14/05/1998 14/05/1998
US 4,972,647 A	27/11/1990	(NONE)	
US 20010001404 A1	24/05/2001	(NONE)	
KR 2002-0367713 B	27/12/2002	(NONE)	